

## State of North Carolina Support for Energy Technology Research at RTI

Presentation to Joint House and Senate Appropriations Committees

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# delivering the promise of science for global good



#### RTI State Funding

RTI currently receives \$800,000 per year (recurring)\* in State of North Carolina funding to invest in clean energy research and development. To utilize these funds, RTI must:

**Use the State** 

funds to

support

research in

North

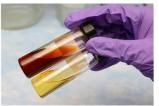
Carolina

Match the **Use the State** State funds at funds for new least 4:1 with energy federal research investment Return any Submit an unobligated annual report funds back to detailing how the State at funds were the end of the utilized fiscal year

\*RTI received \$500,000 per year for FY 2011 – FY 2015. Based on success of the initial funding, the allocation was raised in FY 2016 to \$800,000 and made recurring.

### State Funding of Clean Energy Research at RTI



















- Since 2010, the State of North Carolina has invested ~\$4.0 million to help RTI attract federal and private funding for energy research in NC.
- This State funding to date has directly leveraged \$26.6 million in federal funds (direct return to NC of \$6.63 per State dollar) and has helped attract over \$72 million in total new technology investment, including private sector co-investment in these projects and its corresponding leverage (total return to NC of >\$18.00 per State dollar).
- RTI plans to utilize the full \$800,000 of State funds this fiscal year, attracting ~\$3.9 million in direct federal energy research funds or a direct return of \$4.85 for each invested State dollar this year.
- When considering private sector co-investment in these projects and its corresponding leverage, NC will attract over \$8.3 million in total technology investment this fiscal year, or \$10.40 for every invested State dollar to RTI this year.



#### RTI International Today

RTI is an independent, nonprofit institute that provides objective, disciplined, integrated solutions to complex challenges for both private and public sector clients worldwide.

Our mission is to improve the human condition by turning knowledge into practice.



RTI's Economic Impact on NC (2013 Data – greater impact today!)

#### \$442 million

TOTAL ECONOMIC IMPACT IN NORTH CAROLINA

3,600 jobs











\$570,000











\$227 million









#### Energy Technology Research at RTI International

#### **ENERGY TECHNOLOGIES**

**Developing advanced process technologies** for clean energy applications



**Natural** Gas



**Carbon Capture &** Utilization



Clean Coal / Syngas **Processing** 



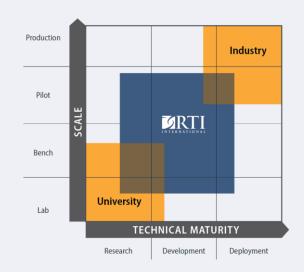
**Industrial Water Treatment** 



**Emerging Technologies** 



**Biomass** Conversion



**Focused on Applied Research** (concept to demonstration) in Partnership with Government Agencies, Academia, and Industry





































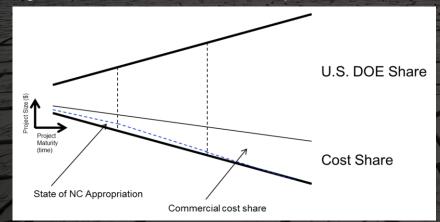






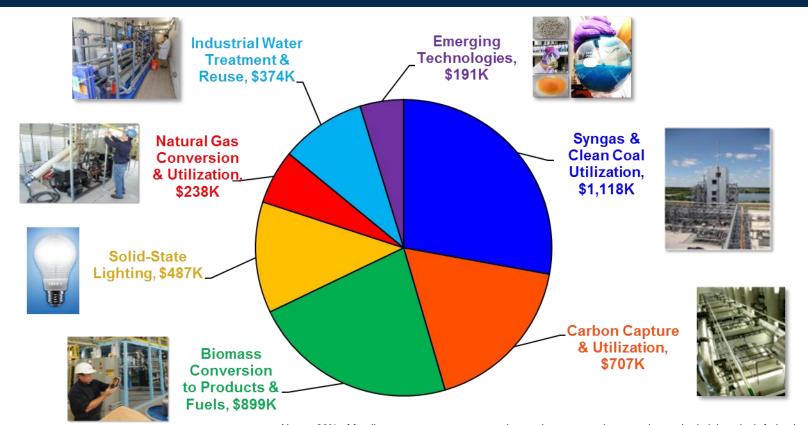
#### NC Funding Helps RTI Advance Technologies Across R&D "Valley of Death"

- All RTI ETD projects are competitively bid and down-selected and require some level of cost share (typically 20%).
- The development of new technologies often exceed RTI's ability to assume full funding for cost share until they are sufficiently proven to attract private funding ("Valley of Death").
- State funds allow RTI to cover this cost share gap and demonstrate the viability of new technologies – and then attract private investment as they mature.
- As projects are advanced, industry often picks up the full funding load for federal cost share requirements.

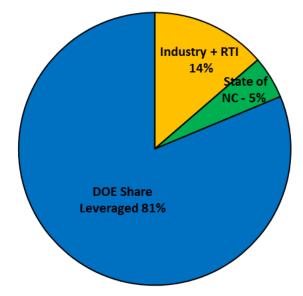




# Diverse RTI Energy Program Areas Supported by State Funding (Cumulative \$ for FY11-FY17)



#### FY11-FY17 Cumulative RTI Energy Funding By Source

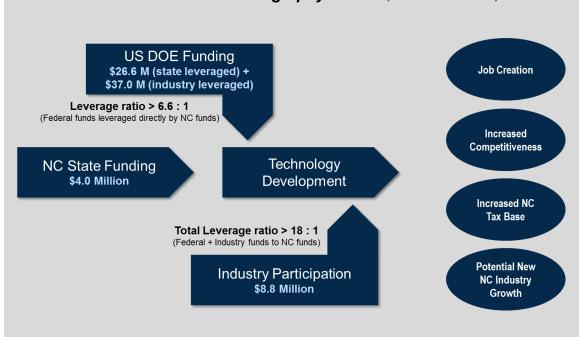


FY11-17 RTI Total Energy Funding Breakdown

Note: State of NC funds are <u>critical</u> because much of the other funding depends on the NC funds as cost share to kick-start the projects. State of NC funds serve as our "seed corn."

"...for each new high-tech job in a city, five additional jobs are ultimately created outside of the high-tech sector in that city."

The New Geography of Jobs, Enrico Moretti, 2013



#### THANK YOU !!!

We appreciate the State's support of our clean energy technology projects and the continued opportunity to hire and retain high technology jobs in the State of North Carolina. Please visit us!



Please direct any questions to David L. Denton, Senior Director, Business Development, RTI International, ddenton@rti.org or 919-485-2609.